Customer No. 28880

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Confirmation No.

PTO/SB/21 (03-03)

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•	Application Number	10/662,046			
TRANSMITTAL	Filing Date	September 11, 2003			
FORM	First Named Inventor	Bolton, et al.			
(to be used for all correspondence after initial	I filing) Art Unit	1626			
	Examiner Name	Not Yet Assigned			
Total Number of Pages in This Submission	Attorney Docket Number	PC 25006A			
	ENCLOSURES (Check all that	apply)			
Fee Transmittal Form Fee Attached Amendment/Reply After Final Affidavits/declaration(s) Extension of Time Request Express Abandonment Request Information Disclosure Statement Certified Copy of Priority Document(s) Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53		After Allowance Communication to a Technology Center (TC) Appeal Communication to Board of Appeals and Interferences Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) Proprietary Information Status Letter Other Enclosure(s) (please Identify below): Statement as Provided by 37 CFR 1.97(b) Return Postcard HE FEE AND ANY ADDITIONAL FEES AS VERPAYMENT TO DEPOSIT ACCOUNT			
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Firm Cynthia M. Bott or Individual Signature	0.72.H				
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Date 4-/3-09					
С	ERTIFICATE OF TRANSMISSION	/MAILING			
I hereby certify that this correspondence is being fa first class mail in an envelope addressed to:Commis	acsimile transmitted to the USPTO or deposited wi ssioner for Patents, P.O.Box 1450, Alexandria, VA 22313-1	th the United States Postal Service with sufficient postage as			
Typed or printed Cynthia D. Ber	rnges				
Signature Cynthus	à D. Berrays	Date 41304			

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If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

USPTO Fax No.

703-872-9306

NATHER NITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.

10/662,046

Applicant

Bolton, et al.

Filed

September 11, 2003

Title

"INHIBITORS OF FACTOR Xa AND OTHER SERINE PROTEASES INVOLVED IN THE COAGULATON CASCADE"

TC/AU Examiner 1626

Docket No.

Not Yet Assigned PC25006A

Customer No.:

28880

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT (37 C.F.R. §1.97(b))

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

The Information Disclosure Statement submitted herewith is being filed before the mailing of the first Office Action on the merits.

In accordance with 37 C.F.R. §1.98(a)(2), a copy of each document or other information listed on the enclosed Form 1449 is provided.

A concise explanation of the relevance of each non-English language document or other information is as follows (37 C.F.R. §1.98(a)(3)):

WO 02/30880: WO 02/30880 discloses N-substituted amino acid derivative compounds of formula I, as described therein, which are suitable as inhibitors of blood coagulation factor Xa. For example, D-alanine was condensed with 3-iodobenzonitrile to give (2R)-2-(3cyanophenylamino)-propionic acid, which was then reacted with 4'-aminobiphenyl-2-sulfonic acid tert-Bu amide to give (2R)-N-(2'-tert-butylsulfamoylbiphenyl-4-yl)-2-(3cyanophenylamino)-propionic acid amide (II). The cyano group of II was then reacted with hydroxylamine hydrochloride to give I.

WO 02/08177: Applicants note that a corresponding US application, US2003/0162814, has published in English (identified by Micropatent family search).

WO 02/48099: Applicants note that a corresponding US application, US2004/0038858, has published in English (identified by Micropatent family search).

WO 02/24654: WO 02/24654 dislcoses biphenyl-substituted aminoquinoline and isoquinoline derivative compounds of Formula I, as described therein, which are suitable as inhibitors of blood coagulation factors Xa and VIIa. For example, 7-isoquinolinol was treated with BrCHPrCO₂CMe₃, followed by ester hydrolysis, amidation with 2-MeSO₂C₆H₄C₆H₄NH₂-4, N-oxide., reaction with pyridine, and treatment with ethanolamine to give the title compd. I.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. §1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form

1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

It is understood by the Applicants that this paper requires no fee; however, authorization is given to charge any necessary filing fees and any additional fees or credit any overpayment to Deposit Account 23-0455.

Authorization is hereby given to charge the required fee under 37 C.F.R. §1.17(p), any other necessary filing fees and any additional fees or credit any overpayment to Deposit Account 23-0455.

Respectfully Submitted,

Dated: 4-13-04

Cynthia M. Bott, J.D., Ph.D. Registration No. 46,568 Warner –Lambert Company

2800 Plymouth Road

Ann Arbor, Michigan 48105 Telephone: (734) 622-4476 Facsimile: (734) 622-1553

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known				
Application Number	10/662,046			
Filing Date	September 11, 2003			
First Named Inventor	Bolton, et al			
Art Unit	1626			
Examiner Name	Not Yet Known			
Attorney Docket Number	PC 25006A			

PTO/SB/08a (08-03)

			U. S. PATENT D	OCUMENTS	
Examiner Initials*	Cite No.1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ^{2 (if known)} US- 4559157	December 17, 1985	Smith, et al.	
		US- 4608392	August 26, 1996	Jacquet, et al.	
		us- 4820508	April 11, 1989	Mitchell S. Wortzman	
- Paragraphic Coloniagos (Company)		US- 4938949	July 3, 1990	Borch, et al.	
and the state of t		US- 4992478	February 12, 1991	Geria, et al.	
		US- 5807875	September 15, 1998	Rudolf, et al.	
		US- 2004/0038858	February 26, 2004	Dorsch, et al.	
		US- 2003/0162814	August 28, 2003	Juraszyk, et al.	
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	FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ (Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T⁵
	1	WO 01/64642 A2 ~	09/07/01	Cortherapeutics, Inc.	,	
	†************************	WO 01/96296 A1	12/20/01	Eli Lilly and Company	***************************************	
	 	WO 02/057236 A1	07/25/02	Merck Patent GMBH		
	·	WO 02/08177 A2	01/31/02	Merck Patent GMBH		
	·	WO 02/24654 A1	03/28/02	Merck Patent GMBH		

Examiner	Date	٠.
Signature	Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at <u>www.uspto.gov</u> or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language

Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents P.O. Box 1450, Alexandria VA 22313-1450. ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PC 25006

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Attorney Docket Number

Sheet U. S. PATENT DOCUMENTS **Publication Date** Name of Patentee or Pages, Columns, Lines, Where Cite No.1 Document Number Examiner MM-DD-YYYY Applicant of Cited Document Relevant Passages or Relevant Initials* Figures Appear Number-Kind Code² (if known) US-US-US-US-US-US-US-US-US-US-US-ŪŠ-US-US-US-US-

	FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ Number ⁴ 'Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶		
		WO 02/30880 A2 .	04/18/02	Merck Patent GMBH				
******************	†	WO 98/007718 A1 •	02/26/98	Warner-Lambert Company				
	†	WO 98/50029 A1 ·	11/12/98	University of Pittsburgh				
***************************************	†	WO 97/05161 A1 .	02/13/97	Sandoz ltd.				
***************************************	†	WO 97/19911 A1 '	06/05/97	Dr. Karl Thomae GMBH				

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Examiner	Date	
Signature	Considered	
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			Application Number	10/662,046
	INFORMATION DISC	LOSURE	Filing Date	September 11, 2003
	STATEMENT BY AP	PLICANT	First Named Inventor	Bolton, et al
			Art Unit	1626
	(Use as many sheets as nece	essary)	Examiner Name	Not Yet Known
She	et 3	of 5	Attorney Docket Number	PC 25006A

			U. S. PATENT D	OCUMENTS	
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ^{2 (if known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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Initials*	No.'	Country Code ³ Number ⁴ 'Kind Code ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	Τ°	
		WO 97/46576 A1 ~	12/11/97	Gyogyszerkutato Intezet			
		WO 95/28420 A1 ·	10/26/95	Corvas International Inc.			
	Ĭ	WO 02/48099 A1 •	06/20/02	Merck Patent GMBH	***************************************		
]	CA 23/99018	08/30/01	Merck Patent GMBH	***************************************		
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Examiner		Date	
Signature		Considered	

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Application Number 10/662,046

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

First Named Inventor

Bolton, et al

				Art Unit	1626
(Use as many sheets as necessary)			·	Examiner Name	Not Yet Known
Sheet	4	of	5	Attorney Docket Number	PC 25006A

NON PATENT LITERATURE DOCUMENTS							
Examiner Cite No.		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
		BERGE S.M. ET AL., Pharmaceutical Salts, Journal of Pharmaceutical Science, 1977;66:1-19					
		EDMUNDS et al., Annual Reports in Medicinal Chemistry, 1996, p. 51					
		ERIK VERNER et al.: "Development of Serine Protease Inhibitors Displaying a Multicenter Short Hydrogen Bond Binding Mode: Inhibitors of Urokinase-Type Plasminogen Activator and Factor Xa" JOURNAL OF MEDICINAL CHEMISTRY Vol 44, no. 17, 2001, Pages 2753-2771, XP002216503 .					
		F AL-OBEIDI & JAOSTREM: "Factor Xa Inhibitors" EXPERT OPINION ON THERAPEUTIC PATENTS., Vol 9, No. 7, 1999, Pages 931-953, XP001000512					
		FIORAVANTI et al., Thromb. Res., 1993, pp. 317-324					
	•••••••	FIORAVANTI et al., Thromb. Res., 1993, pp. 317-324					
	***************************************	KUNITADA and NAGAHAREA, Cirr. Pharm. Des., 1996, pp 531-542					
	••••••	LAPATTO et al., Embo. J, 1997, pp. 5151-5161					
		LEADLEY, Curr. Top. Med. Chem., 2001, Vol. 1, pp. 151-159					
	••••••	LYNCH et al., Thromb. Haemostasis, 1995, pp 640-645					

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Examiner		Date		
Signature		Considered		

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Substitute fo	or form 1449B/₱TO			Complete if Known		
				Application Number	10/662,046	
INFO	RMATION DI	SCLO	SURE	Filing Date	September 11, 2003	
STATEMENT BY APPLICANT				First Named Inventor	Bolton, et al.	
				Art Unit	1626	
	(Use as many sheets as	s necessary)	Examiner Name	Not Yet Known	
Sheet	5	of	5	Attorney Docket Number	PC 25006A	

NON PATENT LITERATURE DOCUMENTS							
Examiner Cite No.1		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
:		MELLOTT et al., Fibrinolysis, 1993, pp. 195-202 .					
		MICHAEL R WILEY et al., "Structure-Based Design of Potent, Amidine-Derived Inhibitors of Factor Xa: Evaluation of Selectivity, Anticoagulant Activity, and Antithrombotic ctivity" JOURNAL OF MEDICINAL CHEMISTRY, vol 43, no. 5, 2000, pages 883-899, XP002186966					
		SCHAFFER et al., Circulation, 1991, pp. 640-645					
		WONG et al., Thromb. Res., 1996, pp. 317-32					
		YING K. YEE et al.,: "N-Aroylanthranilamide Inhibitors of Human Factor Xa" JOURNAL OF MEDICINAL CHEMISTRY., vol. 43, no 5, 2000, pages 873-882, XP002186					

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